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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,935	03/26/2004	Yo Tsurumi	59558.00022	6426
32294 7590 05/20/2008 SQUIRE, SANDERS & DEMPSEY L.L.P. 8000 TOWERS CRESCENT DRIVE 14TH FLOOR VIENNA, VA 22182-6212			EXAMINER ESTREMSKY, SHERRY LYNN	
			ART UNIT 3681	PAPER NUMBER
			MAIL DATE 05/20/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/809,935

**Applicant(s)**

TSURUMI, YO

**Examiner**

Sherry L. Estremsky

**Art Unit**

3681

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,7-11,13,15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,6 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 29, 2008 has been entered.
2. The receipt of the amendment dated February 29, 2008, including amendments to the claims, is acknowledged.

### ***Claim Objections***

3. Claims 1 and 5 are objected to because of the following informalities: in claim 1, line 14, "main body casing" should be --main casing--; in claim 5, line 5, "an" should be --a--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 5, 6, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka, U. S. Patent 6,699,152 in view of Katada et al., JP 62233540.

Tanaka discloses an oscillating inner gearing planetary gear system.

The planetary gear system includes an internal gear 21.

An external gear 19 meshes with the internal gear.

An eccentric body 17a oscillatingly rotates the external gear 19.

Shaft 5 is an input shaft.

Supporting unit 11 is an output member.

A middle shaft 30 (the shaft portion of "intermediate gear 30" which carries gears 30a and 30b) has a gear 30a linking the middle shaft to the input shaft.

A main casing made of the flange portions of gear 21 and motor mounting member 24 houses the oscillating inner gearing planetary gear system.

The external gear 19 is oscillatingly rotated via the input shaft 25, the linking gear 30a, the middle shaft 30, and the eccentric body 17a.

The linking gear 30a links the middle shaft 30 to the input shaft 25 inside the main body casing 21/24.

(claim 1)

An eccentric shaft 17 has the eccentric body 17a, and is disposed apart from the middle shaft 30.

(claim 3)

Tanaka discloses that "a plurality of bearing-use holes 12a are provided between adjacent ones of the plurality of cylindrical portions 13" (column 2, lines 34-36), "a plurality of bearing-

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use holes 14a and a central hole 14b are provided in the end plate 14 in correspondence with the bearing-use holes 12a" (column 2, lines 37-40), and "(a)n eccentric member shaft 17... is rotatably supported in the bearing-use holes 12a and 14a" (column 2, lines 41-44). Accordingly, a plurality of eccentric shafts are taught by Tanaka.

Each eccentric shaft 17 has an eccentric shaft drive gear 33.

The middle shaft 30 has a transmitting gear 30b.

All of the eccentric shaft drive gears 33 mesh with the transmitting gear 30b concurrently.  
(claim 5)

The hollow shaft 30 has a hollow structure.  
(claim 6)

The eccentric body 17a oscillatingly rotates the external gear 19, and an output shaft 11 is a hollow shaft.  
(claim 14)

Tanaka does not disclose that the linking gear 30a of the middle shaft 30 is an orthogonal gear that links the middle shaft to the input shaft at a right angle.

Katada et al. teaches an oscillating inner gearing planetary gear system including in internal gear 8, an external gear  $5_1$  which meshes with the internal gear, an eccentric body 3<sub>1</sub> which oscillatingly rotates the external gear  $5_1$ , an input shaft 29 (figure 3), an output member 13, and a middle shaft 2 having an orthogonal gear 28, the orthogonal gear 28 linking the middle shaft 2 to the input shaft 29 at a right angle.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Tanaka to supply the middle shaft with an orthogonal gear linking the middle shaft to the input shaft at a right angle in view of Katada et al. because the size, weight, and arrangement of the structure is compact, improving mounting performance and

making it suitable for uses such as joint sections of robots (Katada et al. translation, pages 10-11).

### *Response to Arguments*

6. Applicant's amendment and remarks have overcome the 102(b) rejection of claim 1, but the remarks regarding the 103 rejection of claims 1, 3, 5, 6, and 14 are not persuasive. As described above, Tanaka shows a main casing housing the oscillating inner gearing planetary gear system, with the orthogonal gear linking the middle shaft to the input shaft at a right angle inside the main casing.

### *Conclusion*

7. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherry L. Estremsky whose telephone number is (571) 272-7090. The examiner can normally be reached on Monday and Thursday from 7:00 a.m. to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sherry L. Estremsky/  
Primary Examiner, Art Unit 3681

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